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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/924,719 | 08/09/2001 | Pascal Agin | Q65717 | 3974 |
| 23373 | 7590 | 03/30/2005 | EXAMINER | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | HAILE, FEBEN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2663 | |

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,719

Applicant(s)

AGIN ET AL.

Examiner

Feben M Haile

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/9/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because the components of figures 2 and 3 need to be labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected to because of the following informalities: there is no transitional phrase that defines whether additional components or steps can be included or excluded. Appropriate correction is required.

4. Claim 1 is objected to because of the following informalities: this claim suggests a method but there are no corresponding steps. Appropriate correction is required.

5. Claims 19-23 are objected to because of the following informalities: the use of the words "means for" would imply that a component would be performing a specified step but independent base claim 1 does not provide any steps to its method. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 1-3, 5-8, 13, & 19-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al (US 6,434,380), hereinafter referred to as Andersson.

Regarding claim 1, Andersson discloses a method of taking account of traffic processing capacity for the purpose of traffic load control in a mobile radio network (column 1 lines 60-63; a user equipment negotiates resources with a capacity management system for a prospective connection), wherein account is taken of one or more limits in said processing capacity corresponding to one or more parameters representative of said traffic load (column 1 lines 42-45; resources include power, bit rate, etc...).

Regarding claim 2, Andersson discloses wherein one of said parameters is associated with the number of radio links that can be established (column 2 lines 9-11; resources in a prospective connection are handover legs), and a corresponding limit is represented by a maximum number of radio links that can be established (it is inherent that the capacity management system would represent the maximum number of handover legs that can be established in a prospective connection because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process).

Regarding claim 3, Andersson discloses wherein said maximum number of radio links is a maximum number of radio links that can be established in marcodiversity (figure 1 column 3 lines 38-43; two different base stations connected to the same radio network controller transmit information to one user equipment unit).

Regarding claim 5, it is inherent that the capacity management system would represent the maximum number of handover legs that can be established in a prospective connection because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process.

Regarding claim 6, Andersson discloses wherein one of said parameters is associated with data rate for established radio links (column 1 lines 42-45; resources in a prospective connection are bit rates), and a corresponding limit is represented by a maximum data rate for the established radio links (it is inherent that the capacity management system would represent the maximum bit rate that can be established in a prospective connection because it would provide data integrity for the transmitted information).

Regarding claim 7, it is inherent that after the capacity management system has established a maximum bit rate for the prospective connection, that bit rate would be used in the up direction because it would provide data integrity for the information being transmitted from the user equipment to the base station.

Regarding claim 8, it is inherent that after the capacity management system has established a maximum bit rate for the prospective connection, that bit rate would be used in the down direction because it would provide data integrity for the information being transmitted from the base station to the user equipment.

Regarding claim 14, Anderson discloses wherein said limits are considered on a per cell or a per base station basis (column 4 lines 43-45; the capacity management system is responsible for a single cell).

Regarding claim 19, Andersson discloses a mobile radio network (figure 1 and column 1 lines 8-12; a wireless telecommunications system for obtaining resources in connection with admitting and/or sustaining a call with a mobile user).

Regarding claim 20, Andersson discloses a base station (figure 1 unit 22 and column 3 lines 58-60; the base stations transmit and receive radio signals involved in the connection or session).

Regarding claim 21, Andersson discloses wherein said means comprise means for signaling one or more limits in its processing capacity to a base station controller that controls it (column 1 lines 60-63; a user equipment negotiates resources with a capacity management system for a prospective connection), said limits corresponding to one or more parameters representative of traffic load (column 1 lines 42-45; resources include power, bit rate, handover legs, etc...).

Regarding claim 22, Andersson discloses a base station controller for a mobile radio network (figure 1 unit 24 and column 1 lines 42-45; a radio network controller allocates resources for a call involving a user equipment).

Regarding claim 23, Andersson discloses wherein said means include means for verifying whether one or more limits in the processing capacity of a base station under its control and corresponding to one or more parameters representative of traffic load has been reached (column 7 lines 34-40; a load manager in the capacity management system is triggered when the status is changed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 9-12 & 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al (US 6,434,380), hereinafter referred to as Andersson, in view of Hottinen et al. (US 2002/0012380), hereinafter referred to as Hottinen.

Regarding claim 4, Andersson discloses the limitations of base claim 2. It is further obvious that the maximum number of radio links established by the processing capacity management system is the maximum number of radio links used in a transmission process because it would provide a more efficient use of the channels, thus creating a network with a more reliable transmission process.

Andersson fails to teach the limitation that the transmission process used for the maximum number of radio links is transmission diversity.

Hottinen discloses a radio system where a signal can be transmitted over at least two transmit antenna paths (page 2 paragraph 0024).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Anderson to incorporate the transmission diversity taught by Hottinen. The motivation being: eliminating signal fading on the radio path thus creating more reliable transmissions.

Regarding claim 9, Andersson discloses the limitations of base claim 6. Andersson. It is further obvious that the maximum data rate established by the processing capacity management system is used for a first type of traffic because it would provide data integrity for the transmitted information.

Andersson fails to teach the limitation where an error correcting code is used for a first type of traffic.

Hottinen discloses the use of an encoder for the channel coding of packets arriving at a radio network subsystem (figure 2A unit 202 and page 3 paragraph 0041).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the coding feature taught by Hottinen. The motivation being: adding redundancy into the data so as to protect against transmission errors.

Regarding claim 10, Andersson discloses the limitations of base claim 6. It is further obvious that the maximum data rate established by the processing capacity management system is used for a second type of traffic because it would provide data integrity for the transmitted information. .

Andersson fails to teach the limitation where an error correcting code is used for a second type of traffic.

Hottinen discloses the use of an encoder for the channel coding of packets arriving at a radio network subsystem (figure 2A unit 202 and page 3 paragraph 0041).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the coding feature taught by

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Hottinen. The motivation being: introducing redundancy into the data so as to protect against transmission errors.

Regarding claim 11, Andersson as modified by Hottinen disclose the limitations of base claim 9. Hottinen discloses wherein a first type of error correction code is a turbo-code (page 3 paragraph 0041).

Regarding claim 12, Andersson as modified by Hottinen discloses the limitations of base claim 10. Hottinen discloses wherein a second type of error correcting code is a convolutional code (page 3 paragraph 0041).

Regarding claim 13, Andersson discloses the limitations of base claim 6.

Anderson fails to teach the limitation wherein said data rate is a net data rate.

Hottinen discloses a channel decoder to decode the channel coding used in the transmission (figure 2A unit 228 and page 4 paragraph 0057).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Andersson to incorporate the decoder taught by Hottinen. The motivation being: the decoder would remove the redundancy from the encoded channel thereby creating the original stream of data.

Regarding claim 15, Andersson discloses the limitations of base claim 1.

Andersson fails to teach the limitation wherein said limits are considered per physical channel.

Hottinen discloses that the measurement of channel quality is related to channel conditions such as channel parameters, power, or bit error rate (page 5 column 0064).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Andersson to incorporate the physical channels taught by Hottinen. The motivation being: physical channels allow the option of choosing between transmitting data either to all subscribers or subscriber-specific units.

Regarding claim 16, Andersson discloses the limitations of base claim 1.

Andersson fails to teach the limitation wherein said limits are considered per type of physical channel.

Hottinen discloses that the measurement of channel quality is related to channel conditions such as, power, bit error rate, etc...(page 5 column 0064) and that physical channels are divided into different types (page 3 paragraph 0037).

It would have to one having ordinary skill in the art at the time the invention was made to modify Anderson to incorporate the different types of physical channels taught by Hottinen. The motivation being: physical channels allow the option of choosing between transmitting data either to all subscribers or subscriber-specific units.

Regarding claim 17, Andersson as modified by Hottinen discloses the limitations of base claim 16. Hottinen discloses wherein one type of physical channel is a dedicated physical channel (page 3 paragraph 0037).

Regarding claim 18, Andersson as modified by Hottinen discloses the limitations of base claim 16. Hottinen discloses wherein one type of physical channel is a common physical channel (page 3 paragraph 0037).

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Conclusion


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Aksentijevic et al. (US 6,738,624), Method and System for Capacity Reporting in a Mobile Telecommunications Network

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KENNETH VANDERPUYE
PRIMARY EXAMINER